Carolina Water Service, Inc. of South Carolina Summary of Risk Premium Models for the Proxy Group of Eight Water Companies

		Proxy Group of Eight Water	f
		Companies	
Predictive Risk			
Premium Model			
(PRPM) (1)		11.45	%
Risk Premium Using			
an Adjusted Total			
Market Approach (2)		9.93	%
	Average	10.69	- %

Notes:

- (1) From page 2 of this Schedule.
- (2) From page 3 of this Schedule.

Carolina Water Service, Inc. of South Carolina Indicated ROE Derived by the Predictive Risk Premium Model (1)

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Proxy Group of Eight Water Companies	LT Average Predicted Variance	Spot Predicted Variance	Average Predicted Variance	GARCH Coefficient	Predicted Risk Premium (2)	Risk-Free Rate (3)	Indicated ROE (4)
American States Water Co.	0.38%	0.31%	0.35%	1.75224	7.61%	3.58%	11.19%
American Water Works Company Inc	NMF	NMF	NMF	5.76835	NMF	3.58%	NMF
Aqua America Inc	0.45%	0.23%	0.34%	2.27726	9.70%	3.58%	13.28%
California Water Service Group	0.32%	0.28%	0.30%	1.94189	7.22%	3.58%	10.80%
Connecticut Water Service Inc	0.29%	0.25%	0.27%	1.94197	6.48%	3.58%	10.06%
Middlesex Water Co.	0.29%	0.37%	0.33%	2.03529	8.36%	3.58%	11.94%
SJW Corp	0.42%	0.40%	0.41%	1.57789	8.05%	3.58%	11.63%
York Water Co.	0.46%	0.41%	0.44%	2.12297	11.80%	3.58%	NMF
						Average	11.48%
						Median	11.41%
					Average of Me	an and Median	11.45%

NMF = Not Meaningful Figure

Notes:

- (1) The Predictive Risk Premium Model uses historical data to generate a predicted variance and a GARCH coefficient. The historical data used are the equity risk premiums for the first available trading month as reported by Bloomberg Professional Service.
- (2) (1+(Column [3] * Column [4])¹²) 1.
- (3) From note 2 on page 2 of Schedule DWD-5.
- (4) Column [5] + Column [6].

Carolina Water Service, Inc. of South Carolina Indicated Common Equity Cost Rate Through Use of a Risk Premium Model Using an Adjusted Total Market Approach

Line No.			Proxy Group of Eight Water Companies
1.		Prospective Yield on Aaa Rated Corporate Bonds (1)	4.61 %
2.		Adjustment to Reflect Yield Spread Between Aaa Rated Corporate Bonds and A Rated Public Utility Bonds	0.25 (2)
3.		Adjusted Prospective Yield on A Rated Public Utility Bonds	4.86 %
4.		Adjustment to Reflect Bond Rating Difference of Proxy Group	0.06 (3)
5.		Adjusted Prospective Bond Yield	4.92 %
6.		Equity Risk Premium (4)	5.01
7.		Risk Premium Derived Common Equity Cost Rate	9.93_%
Notes:	(1)	Consensus forecast of Moody's Aaa Rated Corpor Chip Financial Forecasts (see pages 10-11 of this	
	(2)	The average yield spread of A rated public utility rated corporate bonds of 0.25% from page 4 of the	
	(3)	Adjustment to reflect the A2 / A3 Moody's LT issuproxy group of eight water companies as shown a Schedule. The 0.06% upward adjustment is derived the spread between A2 and A3 Public Utility Bondo.06%) as derived from page 4 of this Schedule.	uer rating of the on page 5 of this ved by taking 1/6 of
	(4)	From page 7 of this Schedule.	

Carolina Water Service, Inc. of South Carolina Interest Rates and Bond Spreads for Moody's Corporate and Public Utility Bonds

Selected Bond Yields

[1] [2] [3]

	Aaa Rated	A Rated Public	Baa Rated Public
	Corporate Bond	Utility Bond	Utility Bond
Sep-2017	3.63 %	3.86 %	4.23 %
Aug-2017	3.63	3.86	4.23
Jul-2017 Average	3.70	3.99	<u>4.36</u> <u>4.27</u> %

Selected Bond Spreads

A Rated Public Utility Bonds Over Aaa Rated Corporate Bonds:

0.25 % (1)

Baa Rated Public Utility Bonds Over A Rated Public Utility Bonds:

0.37 % (2)

Notes:

- (1) Column [2] Column [1].
- (2) Column [3] Column [2].

Source of Information:

Bloomberg Professional Service

Carolina Water Service, Inc. of South Carolina Comparison of Long-Term Issuer Ratings for Proxy Group of Eight Water Companies

Moody's	Standard & Poor's			
Long-Term Issuer Rating	Long-Term Issuer Rating			
October 2017	October 2017			

Proxy Group of Eight Water Companies	Long-Term Issuer Rating	Numerical Weighting(1)	Long-Term Issuer Rating	Numerical Weighting(1)
American States Water Co. (2)	A2	6.0	A+	5.0
American Water Works Company Inc (3)	A3	7.0	Α	6.0
Aqua America Inc (4)	NR		A+	5.0
California Water Service Group (5)	NR		A+	5.0
Connecticut Water Service Inc (6)	NR		Α	6.0
Middlesex Water Co.	NR		Α	6.0
SJW Corp (7)	NR		Α	6.0
York Water Co.	NR		A-	7.0
Average	A2/A3	6.5	A	5.8

Notes:

- (1) From page 6 of this Schedule.
- (2) Ratings that of Golden State Water Company.
- (3) Ratings that of New Jersey and Pennsylvania American Water Companies.
- (4) Ratings that of Aqua Pennsylvania, Inc.
- (5) Ratings that of California Water Service Company.
- (6) Ratings that of Connecticut Water Company.
- (7) Ratings that of San Jose Water Company.

Source Information:

Moody's Investors Service

Standard & Poor's Global Utilities Rating Service

Numerical Assignment for Moody's and Standard & Poor's Bond Ratings

Moody's Bond Rating	Numerical Bond Weighting	Standard & Poor's Bond Rating
Aaa	1	AAA
Aa1	2	AA+
Aa2	3	AA
Aa3	4	AA-
A1	5	A+
A2	6	A
A3	7	A-
Baa1	8	BBB+
Baa2	9	BBB
Baa3	10	BBB-
Ba1	11	BB+
Ba2	12	ВВ
Ba3	13	BB-
B1	14	B+
B2	15	В
В3	16	B-

Carolina Water Service, Inc. of South Carolina Judgment of Equity Risk Premium for Proxy Group of Eight Water Companies

Line No.	_	Proxy Group of Eight Water Companies
1.	Calculated equity risk premium based on the total market using	
	the beta approach (1)	5.87 %
2.	Mean equity risk premium based on a study using the holding period returns of public utilities	
	with A rated bonds (2)	4.15
3.	Average equity risk premium	5.01 %
Notes:	(1) From page 8 of this Schedule.(2) From page 12 of this Schedule.	

Exhibit No. __ Schedule DWD-4 Page 8 of 12

Carolina Water Service, Inc. of South Carolina Derivation of Equity Risk Premium Based on the Total Market Approach Using the Beta for the Proxy Group of Eight Water Companies

<u>Line No.</u>	Equity Risk Premium Measure	Proxy Group o Eight Water Companies	of
	Ibbotson-Based Equity Risk Premiums:		
1.	Ibbotson Equity Risk Premium (1)	5.56	%
2.	Regression on Ibbotson Risk Premium Data (2)	7.37	
3.	Ibbotson Equity Risk Premium based on PRPM (3)	5.91	_ ;
4.	Average Ibbotson Equity Risk Premium	6.28	=
	Value Line-Based Equity Risk Premiums:		
5.	Equity Risk Premium Based on Value Line Summary and Index (4)	4.84	
6.	Equity Risk Premium Based on Value Line S&P 500 Companies (5)	9.69	-0
7.	Average Value Line Equity Risk Premium	7.26	
	Bloomberg-Based Equity Risk Premium:		
8.	Equity Risk Premium Based on Bloomberg S&P 500 Companies (6)	9.31	•
9.	Conclusion of Equity Risk Premium (7)	7.62	%
10.	Adjusted Beta (8)	0.77	_
11.	Forecasted Equity Risk Premium	5.87	<u></u> %

Notes provided on page 9 of this Schedule.

Carolina Water Service. Inc. of South Carolina Derivation of Equity Risk Premium Based on the Total Market Approach Using the Beta for the Proxy Group of Eight Water Companies

Notes:

- (1) Based on the arithmetic mean historical monthly returns on large company common stocks from Ibbotson® SBBI® 2017 Market Report minus the arithmetic mean monthly yield of Moody's average Aaa and Aa corporate bonds from 1926-2016.
- (2) This equity risk premium is based on a regression of the monthly equity risk premiums of large company common stocks relative to Moody's average Aaa and Aa rated corporate bond yields from 1928-2016 referenced in Note 1 above.
- (3) The Predictive Risk Premium Model (PRPM) is discussed in the accompanying direct testimony. The Ibbotson equity risk premium based on the PRPM is derived by applying the PRPM to the monthly risk premiums between Ibbotson large company common stock monthly returns and average Aaa and Aa corporate monthly bond yields, from January 1928 through September 2017.
- (4) The equity risk premium based on the Value Line Summary and Index is derived by subtracting the average consensus forecast of Aaa corporate bonds of 4.61% (from page 3 of this Schedule) from the projected 3-5 year total annual market return of 9.45% (described fully in note 1 on page 2 of Schedule DWD-5).
- (5) Using data from Value Line for the S&P 500, an expected total return of 14.30% was derived based upon expected dividend yields and long-term earnings growth estimates as a proxy for capital appreciation. Subtracting the average consensus forecast of Aaa corporate bonds of 4.61% results in an expected equity risk premium of 9.69%.
- (6) Using data from the Bloomberg Professional Service for the S&P 500, an expected total return of 13.92% was derived based upon expected dividend yields and long-term earnings growth estimates as a proxy for capital appreciation. Subtracting the average consensus forecast of Aaa corporate bonds of 4.61% results in an expected equity risk premium of 9.31%.
- (7) Average of lines 4, 7, and 8.
- (8) Average of mean and median beta from Schedule DWD-5.

Sources of Information:

Stocks, Bonds, Bills, and Inflation - $\,$ 2017 SBBI Yearbook, John Wiley & Sons, Inc. Industrial Manual and Mergent Bond Record Monthly Update.

Value Line Summary and Index

Blue Chip Financial Forecasts, October 1, 2017 and June 1, 2017

Bloomberg Professional Service

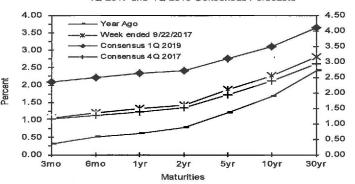
ADECETAGNIEGAL PROLOTES SINGS-1285161 AN GUS 5302573.3 PSC PSC PSD 612611 # 2002 VIS2-VVIS2-VVISQ 6 Page 26 of 82

Consensus Forecasts Of U.S. Interest Rates And Key Assumptions¹

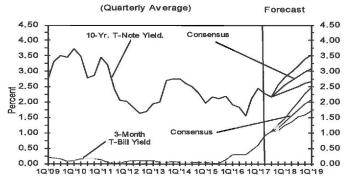
				Histor	y		one dits in a display do des per tell dist lite		Cons	ensus l	Foreca	sts-Qu	arterly	Avg.
	Av	erage For	Week End	ding	Av	erage For	Month	Latest Qtr	4Q	1Q	2Q	3Q	4Q	1Q
Interest Rates	Sep. 22	Sep. 15	Sep. 8	Sep. 1	Aug	<u>Jul</u>	<u>Jun</u>	3Q 2017*	2017	2018	2018	2018	2018	2019
Federal Funds Rate	1.16	1.16	1.15	1.16	1.16	1.15	1.03	1.16	1.2	1.4	1.6	1.8	2.0	2.2
Prime Rate	4.25	4.25	4.25	4.25	4.25	4.25	4.13	4.25	4.3	4.5	4.7	4.9	5.1	5.2
LIBOR, 3-mo.	1.33	1.32	1.32	1.32	1.31	1.31	1.26	1.32	1.4	1.6	1.8	2.0	2.2	2.4
Commercial Paper, 1-mo.	1.11	1.11	1.10	1.11	1.10	1.10	1.00	1.11	1.2	1.4	1.6	1.8	2.0	2.2
Treasury bill, 3-mo.	1.04	1.04	1.05	1.04	1.04	1.09	1.00	1.04	1.2	1.4	1.5	1.7	1.9	2.1
Treasury bill, 6-mo.	1.19	1.16	1.15	1.11	1.13	1.13	1.11	1.17	1.3	1.5	1.7	1.9	2.1	2.2
Treasury bill, 1 yr.	1.31	1.27	1.23	1.23	1.23	1.23	1.20	1.27	1.4	1.6	1.8	2.0	2.2	2.3
Treasury note, 2 yr.	1.43	1.35	1.29	1.33	1.34	1.38	1.33	1.36	1.5	1.7	1.9	2.1	2.3	2.4
Treasury note, 5 yr.	1.87	1.77	1.65	1.72	1.79	1.88	1.77	1.76	1.9	2.1	2.3	2.5	2.6	2.8
Treasury note, 10 yr.	2.26	2.18	2.07	2.14	2.23	2.32	2.19	2.17	2.4	2.5	2.7	2.8	3.0	3.1
Treasury note, 30 yr.	2.81	2.77	2.69	2.75	2.81	2.89	2.81	2.76	2.9	3.1	3.3	3.4	3.5	3.6
Corporate Aaa bond	3.77	3.76	3.70	3.72	3.76	3.81	3.81	3.74	3.9	4.1	4.3	4.4	4.6	4.7
Corporate Baa bond	4.33	4.34	4.3	4.31	4.34	4.39	4.39	4.32	4.5	4.8	5.0	5.1	5.3	5.5
State & Local bonds	3.32	3.31	3.29	3.30	3.35	3.43	3.37	3.31	3.6	3.8	4.0	4.1	4.2	4.3
Home mortgage rate	3.83	3.78	3.78	3.82	3.88	3.97	3.90	3.80	4.0	4.2	4.4	4.5	4.7	4.8
				Histor	y				Co	nsensi	ıs Fore	casts-(Quarter	rly
	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	10
Key Assumptions	2015	2016	2016	2016	2016	2017	2017	<u>2017</u> *	2017	2018	2018	2018	2018	2019
Major Currency Index	93.1	93.3	89.6	90.3	93.7	94.4	93.0	88.3	88.4	88.9	89.1	89.1	89.2	88.6
Real GDP	0.5	0.6	2.2	2.8	1.8	1.2	3.1	2.2	2.6	2.3	2.4	2.3	2.2	2.1
GDP Price Index	0.8	0.3	2.4	1.4	2.0	2.0	1.0	1.7	2.0	1.9	1.9	2.1	2.1	2.2
Consumer Price Index	0.4	0.1	2.3	1.8	3.0	3.1	-0.3	1.9	2.4	2.0	2.0	2.2	2.3	2.3

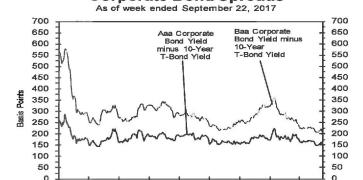
Forecasts for interest rates and the Federal Reserve's Major Currency Index represent averages for the quarter. Forecasts for Real GDP, GDP Price Index and Consumer Price Index are seasonally-adjusted annual rates of change (saar). Individual panel members' forecasts are on pages 4 through 9. Historical data: Treasury rates from the Federal Reserve Board's H.15; AAA-AA and A-BBB corporate bond yields from Bank of America-Merrill Lynch and are 15+ years, yield to maturity: State and local bond yields from Bank of America-Merrill Lynch, A-rated, yield to maturity; Mortgage rates from Freddie Mac, 30-year, fixed; LIBOR quotes from Intercontinental Exchange. All interest rate data is sourced from Haver Analytics. Historical data for Fed's Major Currency Index is from FRSR H.10. Historical data for Real GDP and GDP Chained Price Index (CPI) history is from the Department of Labor's Bureau of Labor Statistics (BLS). Interest rate data for 3Q 2017 based on historical data through the week ended September 22nd. Data for 3Q 2017 Major Currency Index is based on data through week ended September 22nd. Figures for 3Q 2017 Real GDP, GDP Chained Price Index and Consumer Price Index are consensus forecasts based on a special question asked of the panelists' this month.





U.S. 3-Mo. T-Bills & 10-Yr. T-Note Yield





2009 2010 2011 2012 2013 2014 2015 2016 2017

Corporate Bond Spreads



Long-Range Survey:

The table below contains the results of our twice-annual long-range CONSENSUS survey. There are also Top 10 and Bottom 10 averages for each variable. Shown are consensus estimates for the years 2019 through 2023 and averages for the five-year periods 2019-2023 and 2024-2028. Apply these projections cautiously. Few if any economic, demographic and political forces can be evaluated accurately over such long time spans.

			A ver	age For Th	e Vear-		Five-Veer	Averages
Interest Rates		2019	2020	2021	2022	2023	2019-2023	2024-2028
1. Federal Funds Rate	CONSENSUS	2.6	2.9	2.9	2.9	2.9	2.8	3.0
	Top 10 Average	3.1	3.5	3.4	3.5	3.5	3.4	3.5
	Bottom 10 Average	2.0	2.3	2.3	2.3	2.4	2.3	2.4
2. Prime Rate	CONSENSUS	5.6	5.9	5.9	5.9	5.9	5.8	6.0
	Top 10 Average	6.1	6.5	6.5	6.5	6.5	6.4	6.5
	Bottom 10 Average	5.0	5.3	5.3	5.2	5,3	5.2	5.4
3. LIBOR, 3-Mo.	CONSENSUS	2.9	3.1	3.2	3.1	3.2	3.1	3.2
	Top 10 Average	3.4	3.7	3.7	3.7	3,8	3.7	3.8
	Bottom 10 Average	2.4	2.6	2.6	2.5	2.6	2.5	2.6
4. Commercial Paper, 1-Mo.	CONSENSUS	2.7	3.0	3.0	3.0	3.1	3.0	3.1
	Top 10 Average	3.2	3,5	3,5	3,6	3.6	3.5	3.6
	Bottom 10 Average	2.2	2.5	2.5	2.4	2.5	2.4	2.6
5. Treasury Bill Yield, 3-Mo.	CONSENSUS	2.5	2.8	2.8	2.8	2.9	2.8	2.9
	Top 10 Average	3.1	3.4	3.4	3.4	3.5	3.3	3.5
	Bottom 10 Average	1.9	2.2	2.3	2.2	2.3	2.2	2.3
6. Treasury Bill Yield, 6-Mo.	CONSENSUS	2,6	2.9	3.0	3.0	3.0	2.9	3.0
	Top 10 Average	3.2	3.6	3.5 2.4	3.6 2.4	3.6 2.4	3.5 2.3	3.6 2,4
7. Treasury Bill Yield, 1-Yr.	Bottom 10 Average CONSENSUS	2.8	3.1	3.1	3.1	3.1	3.0	3,2
7. Treasury Bill Held, I-11.	Top 10 Average	3.4	3.7	3.7	3.7	3.7	3.6	3.7
	Bottom 10 Average	2.1	2.5	2.5	2.5	2.5	2.4	2.5
8. Treasury Note Yield, 2-Yr.	CONSENSUS	2.9	3.2	3.3	3.3	3.3	3.2	3.3
6. Heastily Note Held, 2-11.	Top 10 Average	3.5	3.9	3.9	3.9	3.9	3.8	4.0
	Bottom 10 Average	2,3	2,6	2.7	2.6	2.6	2.6	2.7
10. Treasury Note Yield, 5-Yr.	CONSENSUS	3.3	3.5	3.5	3.6	3.6	3.5	3.6
10. 11043413 11010 11014, 5 11.	Top 10 Average	3.9	4.2	4.2	4.2	4.2	4.1	4.3
	Bottom 10 Average	2.7	2.9	2,9	3.0	3.0	2.9	3.0
11. Treasury Note Yield, 10-Yr.	CONSENSUS	3.6	3.8	3.8	3,9	3.9	3.8	3.9
	Top 10 Average	4.2	4.5	4.4	4.5	4.5	4.4	4.6
	Bottom 10 Average	2.9	3.1	3.1	3.2	3.3	3.1	3,3
12. Treasury Bond Yield, 30-Yr.	CONSENSUS	4.2	4.3	4.4	4.4	4.4	4.3	4.5
	Top 10 Average	4.9	5.0	5.0	5.0	5.0	5.0	5.1
	Bottom 10 Average	3.5	3.7	3.7	3.8	3.8	3.7	3.8
13. Corporate Aaa Bond Yield	CONSENSUS	5.2	5.4	5.4	5.4	5.5	5.4	5.5
	Top 10 Average	5.7	5.9	5.9	6.0	5.9	5.9	6.0
	Bottom 10 Average	4.7	4.9	4.9	4.9	5.0	4.9	5.1
Corporate Baa Bond Yield	CONSENSUS	6.1	6.3	6.3	6.3	6.3	6.3	6.4
	Top 10 Average	6.8	7.0	6.9	7.0	6.9	6.9	7.0
	Bottom 10 Average	5.5	5.6	5.7	5.6	5.8	5.6	5.7
 State & Local Bonds Yield 	CONSENSUS	4.6	4.7	4.7	4.7	4.7	4.7	4.8
	Top 10 Average	5.1	5.3	5.2	5.3	5.3	5.2	5.3
	Bottom 10 Average	4.2	4.2	4.2	4.1	4.1	4.2	4.2
15. Home Mortgage Rate	CONSENSUS	5.3	5.5	5.5	5.5	5.5	5.4	5.6
	Top 10 Average	5.9	6.2	6.1	6.2	6.1	6.1	6.2
4 EDD 34 : G	Bottom 10 Average	4.6	4.8	4.8	4.7	4.9	4.8	4.9
A, FRB - Major Currency Index	CONSENSUS	93.8	93.2	93.1	93.0	92.7	93.2	92.5
	Top 10 Average Bottom 10 Average	96.5	96,6 89,7	96.9 89.2	97.1 88.7	97.2 88.1	96.9 89,3	97.1 88.1
	Bottom to Average	91.0						
				ver-Year, º	_			Averages
	603/67	2019	2020	2021	2022	2023	2019-2023	2024-2028
B. Real GDP	CONSENSUS	2.2	2.0	2.0	2.0	2.0	2.0	2.1
	Top 10 Average	2.6	2.4	2.4	2.4	2.3	2.4	2.3
C CDD CI : ID : I	Bottom 10 Average	1.7	1.6	1.6	1.6	1.6	1.6	1.8
C. GDP Chained Price Index	CONSENSUS	2.2	2.1	2.1	2.0	2.0	2.1	2.0
	Top 10 Average	2.5	2.3	2.3	2.2	2.2	2.3	2.3
D. Communa Daine V. do.	Bottom 10 Average	1.9	1.9	1.9	1.9	1.7	1.8	1.9
D, Consumer Price Index	CONSENSUS Top 10 A yarraga	2.3	2.3	2.3	2.3	2.2	2.2	2.2
	Top 10 Average	2.6	2.6	2.5	2.5 2.1	2.4	2.5	2.4
	Bottom 10 Average	1.9	2.0	2.0	Z. 1	1.8	2.0	2.0

Carolina Water Service. Inc. of South Carolina Derivation of Mean Equity Risk Premium Based Studies Using Holding Period Returns and Projected Market Appreciation of the S&P Utility Index

Line No.		Implied Equity Risk Premium
	Equity Risk Premium based on S&P Utility Index Holding Period Returns (1):	*
1.	Historical Equity Risk Premium	3.96 %
2.	Regression of Historical Equity Risk Premium (2)	5.59
3.	Forecasted Equity Risk Premium Based on PRPM (3)	3.96
4.	Average Equity Risk Premium Using S&P Holding Period Returns	4.50 %
	Equity Risk Premium based on Projected Market Appreciation of the S&P Utility Index	
5.	Forecasted Equity Risk Premium based on Projected Total Return on the S&P Utilities Index (Value Line Data) (4)	4.20
6.	Forecasted Equity Risk Premium based on Projected Total Return on the S&P Utilities Index (Bloomberg Data) (5)	3.74
7.	Average Equity Risk Premium (6)	4.15 %

- Notes: (1) Based on S&P Public Utility Index monthly total returns and Moody's Public Utility
 Bond average monthly yields from 1928-2016. Holding period returns are
 calculated based upon income received (dividends and interest) plus the relative
 change in the market value of a security over a one-year holding period.
 - (2) This equity risk premium is based on a regression of the monthly equity risk premiums of the S&P Utility Index relative to Moody's A rated public utility bond yields from 1928 - 2016 referenced in note 1 above.
 - (3) The Predictive Risk Premium Model (PRPM) is applied to the risk premium of the monthly total returns of the S&P Utility Index and the monthly yields on Moody's A rated public utility bonds from January 1928 - September 2017.
 - (4) Using data from Value Line for the S&P Utilities Index, an expected return of 9.06% was derived based on expected dividend yields and long-term growth estimates as a proxy for market appreciation. Subtracting the expected A rated public utility bond yield of 4.86%, calculated on line 3 of page 3 of this Schedule results in an equity risk premium of 4.20%. (9.06% 4.86% = 4.20%)
 - (5) Using data from Bloomberg Professional Service for the S&P Utilities Index, an expected return of 8.60% was derived based on expected dividend yields and long-term growth estimates as a proxy for market appreciation. Subtracting the expected A rated public utility bond yield of 4.86%, calculated on line 3 of page 3 of this Schedule results in an equity risk premium of 3.74%. (8.60% 4.86% = 3.74%)
 - (6) Average of lines 4 through 6.

Carolina Water Service. Inc. of South Carolina Indicated Common Equity Cost Rate Through Use of the Traditional Capital Asset Pricing Model (ECAPM) and Empirical Capital Asset Pricing Model (ECAPM)

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Eight Water Companies	Value Line Adjusted Beta	Bloomberg Adjusted Beta	Average Beta	Market Risk Premium (1)	Risk-Free Rate (2)	Traditional CAPM Cost Rate	ECAPM Cost Rate	Indicated Common Equity Cost Rate (3)
American States Water Co.	0.80	0.74	0.77	8.67 %	3.58 %	10.25 %	10.75 %	10.50 %
American Water Works Company Inc	0.65	0.57	0.61	8.67	3.58	8.87	9.71	9.29
Aqua America Inc	0.70	0.61	0.66	8.67	3.58	9.30	10.04	9.67
California Water Service Group	0.80	0.78	0.79	8.67	3.58	10.43	10.88	10.65
Connecticut Water Service Inc	0.65	0.69	0.67	8.67	3.58	9.39	10.10	9.74
Middlesex Water Co.	0.80	0.97	0.89	8.67	3.58	11.29	11.53	11.41
SJW Corp	0.75	0.84	0.80	8.67	3.58	10.51	10.95	10.73
York Water Co.	0.80	0.98	0.89	8.67	3.58	11.29	11.53	11.41_
Mean			0.76			10.17 %	10.69_%	10.43 %
Median			0.78			10.34%	10.82 %	10.58 %
Average of Mean and Median			0.77			10.26	10.76	10.51 %

Notes on page 2 of this Schedule.

Schedule DWD-Page 1 of

Carolina Water Service, Inc. of South Carolina Notes to Accompany the Application of the CAPM and ECAPM

Notes:

(1) The market risk premium (MRP) is derived by using six different measures from three sources: Ibbotson, Value Line, and Bloomberg as illustrated below:

Historical Data MRP Estimates:

Measure 1: Ibbotson Arithmetic Mean MRP (1926-2016)

Measure 1. Industrial Artificial Mean Mar (1920-2010)	
Arithmetic Mean Monthly Returns for Large Stocks 1926-2016: Arithmetic Mean Income Returns on Long-Term Government Bonds: MRP based on Ibbotson Historical Data:	11.97 % 5.17 6.80 %
Measure 2: Application of a Regression Analysis to Ibbotson Historical Data (1926-2016)	8.60 %
Measure 3: Application of the PRPM to Ibbotson Historical Data: (January 1926 - September 2017)	6.69_%
Average Historical Data MRP	<u>7.36</u> %
Value Line MRP Estimates:	
Measure 4: Value Line Projected MRP (Thirteen weeks ending October 13, 2017)	
Total projected return on the market 3-5 years hence*: Projected Risk-Free Rate (see note 2): MRP based on Value Line Summary & Index: *Forcasted 3-5 year capital appreciation plus expected dividend yield	9.45 % 3.58 5.87 %
Measure 5: Value Line Projected Return on the Market based on the S&P 500	
Total return on the Market based on the S&P 500: Projected Risk-Free Rate (see note 2): MRP based on Value Line data	14.30 % 3.58 10.72 %
Average Value Line MRP:	8.29 %
Measure 6: Bloomberg Projected MRP	
Total return on the Market based on the S&P 500: Projected Risk-Free Rate (see note 2): MRP based on Bloomberg data	13.92 % 3.58 10.34 %
Average of Value Line, Ibbotson, and Bloomberg MRP:	8.67 %

(2) For reasons explained in the direct testimony, the appropriate risk-free rate for cost of capital purposes is the average forecast of 30 year Treasury Bonds per the consensus of nearly 50 economists reported in Blue Chip Financial Forecasts. (See pages 10-11 of Schedule DWD-4.) The projection of the risk-free rate is illustrated below:

Fourth Quarter 2017	2.90	%
First Quarter 2018	3.10	
Second Quarter 2018	3.30	
Third Quarter 2018	3.40	
Fourth Quarter 2018	3.50	
First Quarter 2019	3.60	
2019-2023	4.30	
2024-2028	4.50	
	3.58	%

(3) Average of Column 6 and Column 7.

Sources of Information:

Value Line Summary and Index Blue Chip Financial Forecasts, October 1, 2017 and June 1, 2017 Stocks, Bonds, Bills, and Inflation - 2017 SBBI Yearbook, John Wiley & Sons, Inc. Bloomberg Professional Services

Carolina Water Service, Inc. of South Carolina Basis of Selection of the Group of Non-Price Regulated Companies Comparable in Total Risk to the Utility Proxy Group

The criteria for selection of the proxy group of twenty-eight non-price regulated companies was that the non-price regulated companies be domestic and reported in <u>Value Line Investment Survey</u> (Standard Edition).

The proxy group of twenty-eight non-price regulated companies were then selected based on the unadjusted beta range of 0.37 – 0.77 and residual standard error of the regression range of 2.4240 – 2.8912 of the water proxy group.

These ranges are based upon plus or minus two standard deviations of the unadjusted beta and standard error of the regression. Plus or minus two standard deviations captures 95.50% of the distribution of unadjusted betas and residual standard errors of the regression.

The standard deviation of the water industry's residual standard error of the regression is 0.0860. The standard deviation of the standard error of the regression is calculated as follows:

Standard Deviation of the Std. Err. of the Regr. = Standard Error of the Regression $\sqrt{2N}$

where: N = number of observations. Since Value Line betas are derived from weekly price change observations over a period of five years, N = 259

Thus, $0.1168 = \frac{2.6576}{\sqrt{518}} = \frac{2.6576}{22.7596}$

Source of Information: Value Line, Inc., September 2017

Value Line Investment Survey (Standard Edition)

Carolina Water Service, Inc. of South Carolina Basis of Selection of Comparable Risk Domestic Non-Price Regulated Companies

	[1]	[2]	[3]	[4]
Proxy Group of Eight Water Companies	Value Line Adjusted Beta	Unadjusted Beta	Residual Standard Error of the Regression	Standard Deviation of Beta
American States Water Co.	0.80	0.62	2.7883	0.1032
American Water Works Company Inc	0.65	0.41	1.9968	0.0739
Aqua America Inc	0.70	0.54	2.1879	0.0810
California Water Service Group	0.80	0.63	2.6120	0.0967
Connecticut Water Service Inc	0.65	0.46	2.4195	0.0895
Middlesex Water Co.	0.80	0.64	2.9923	0.1107
SJW Corp	0.75	0.56	3.0548	0.1131
York Water Co.	0.80	0.68	3.2092	0.1188_
Average	0.74	0.57	2.6576	0.0984
Beta Range (+/- 2 std. Devs. of Beta) 2 std. Devs. of Beta	0.37 0.20	0.77		
Residual Std. Err. Range (+/- 2 std. Devs. of the Residual Std. Err.)	2.4240	2.8912		
Std. dev. of the Res. Std. Err.	0.1168			
2 std. devs. of the Res. Std. Err.	0.2336			

Source of Information:

Valueline Proprietary Database, September 2017

Carolina Water Service, Inc. of South Carolina Proxy Group of Non-Price Regulated Companies Comparable in Total Risk to the Proxy Group of Eight Water Companies

[1] [2] [3] [4]

Proxy Group of Twenty-Eight Non- Price Regulated Companies	VL Adjusted Beta	Unadjusted Beta	Residual Standard Error of the Regression	Standard Deviation of Beta
AmaniaayyaaDayaay	0.00	0.75	2 5524	0.0045
AmerisourceBergen	0.85	0.75	2.5531	0.0945
ARAMARK Holdings	0.85	0.77	2.4453	0.1022
AutoZone Inc.	0.80	0.64	2.4990	0.0925
Bright Horizons Fami	0.85	0.70	2.4558	0.0942
Cheesecake Factory	0.75	0.58	2.6263	0.0972
CBOE Holdings	0.70	0.50	2.5399	0.0940
Chemed Corp.	0.80	0.68	2.8556	0.1057
C.H. Robinson	0.85	0.70	2.6811	0.0992
CME Group	0.80	0.62	2.4557	0.0909
DineEquity Inc.	0.80	0.67	2.7737	0.1026
Dunkin' Brands Group	0.65	0.45	2.7843	0.1030
Darden Restaurants	0.85	0.76	2.7543	0.1019
Forrester Research	0.70	0.47	2.6503	0.0981
Hormel Foods	0.75	0.57	2.4428	0.0904
Lilly (Eli)	0.75	0.59	2.5230	0.0934
Mercury General	0.80	0.64	2.4716	0.0915
Vail Resorts	0.85	0.72	2.6041	0.0964
NVR, Inc.	0.85	0.70	2.4253	0.0898
Pinnacle Foods	0.80	0.68	2.5721	0.0998
Quintiles IMS Hldgs.	0.85	0.77	2.6073	0.1016
Regal Entertainment	0.85	0.75	2.7024	0.1000
Six Flags Entertainm	0.85	0.74	2.8322	0.1048
Spectrum Brands	0.85	0.72	2.8725	0.1063
Target Corp.	0.85	0.74	2.6959	0.0998
VeriSign Inc.	0.85	0.73	2.8219	0.1044
VWR Corp.	0.85	0.75	2.8069	0.1261
WD-40 Co.	0.85	0.70	2.4499	0.0907
West Pharmac. Svcs.	0.85	0.74	2.5450	0.0942
Average	0.81	0.67	2.6200	0.1000
Proxy Group of Eight Water				
Companies	0.74	0.57	2.6576	0.0984

Source of Information:

Valueline Proprietary Database, September 2017

Exhibit No. __ Schedule DWD-7 Page 1 of 6

Carolina Water Service, Inc. of South Carolina Summary of Cost of Equity Models Applied to Proxy Group of Twenty-Eight Non-Price Regulated Companies Comparable in Total Risk to the Proxy Group of Eight Water Companies

Principal Methods		Twenty-Eigh Non-Price Regulated Companies	
Discounted Cash Flow Model (DCF) (1)	1	13.57	%
Risk Premium Model (RPM) (2)		11.91	
Capital Asset Pricing Model (CAPM) (3)		11.15	_
	Mean	12.21	- %
	Median	11.91	- %
	Average of Mean and Median	12.06	_%

Notes:

- (1) From page 2 of this Schedule.
- (2) From page 3 of this Schedule.
- (3) From page 6 of this Schedule.

<u>Carolina Water Service. Inc. of South Carolina</u> DCF Results for the Proxy Group of Non-Price-Regulated Companies Comparable in Total Risk to the <u>Proxy Group of Eight Water Companies</u>

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]

Proxy Group of Twenty- Eight Non-Price Regulated Companies Amerisource Bergen ARAMARK Holdings AutoZone Inc. Bright Horizons Fami Cheesecake Factory CBOE Holdings Chemed Corp. C.H. Robinson CME Group DineEquity Inc. Dunkin' Brands Group Darden Restaurants Forrester Research Hormel Foods Lilly (Ell) Mercury General Vall Resorts	Average Dividend Yield 1.77 % 1.02 - 1.98 1.06 0.57 2.55 2.05 9.49 2.43 3.06 1.86 2.09 2.52 4.35 1.91	Value Line Projected Five Year Growth in EPS 11.00 % NA 11.50 19.50 8.50 13.00 13.50 6.00 8.50 5.00 10.00 11.00 10.00 11.00 10.50 11.00 14.00 20.50	Reuters Mean Consensus Projected Five Year Growth Rate in EPS 8.24 % 13.96 10.11 17.17 10.55 NA NA 6.30 8.65 3.90 10.51 11.60 12.00 1.62 11.40 26.50 17.50	Zack's Five Year Projected Growth Rate in EPS 9.30 % 12.00 11.60 20.00 14.60 17.40 10.00 8.80 10.60 NA 13.40 10.30 12.00 9.30 10.30 26.50 NA	Yahoo! Finance Projected Five Year Growth in EPS 8.24 % 13.96 10.11 17.17 10.55 18.28 10.00 6.31 8.65 3.90 10.51 11.60 12.00 1.62 11.41 26.50 17.50	Average Projected Five Year Growth Rate in EPS 9.20 % 13.31 10.83 18.46 11.05 16.23 11.17 6.85 9.10 4.27 11.11 11.13 11.50 5.76 11.03 23.38 18.50	Adjusted Dividend Yield 1.85 % 1.09 2.09 1.15 0.60 2.64 2.14 9.69 2.56 3.23 1.97 2.15 2.66 4.86 2.09	Indicated Common Equity Cost Rate (1) 11.05 % 14.40 NA NA 13.14 17.38 11.77 9.49 11.24 13.96 13.67 14.36 13.47 7.91 13.69 28.24 20.59
NVR, Inc. Pinnacle Foods	2.20	15.00 NA	18.70 10.91	14.90 9.30	18.70 10.91	16.83 10.37	2.31	NA 12.68
Quintiles IMS Hldgs.	•	12.00	12.93	13.00	13.78	12.93		NA
Regal Entertainment	5.30	12.00	3,34	10.00	4.27	7.40	5.50	12.90
Six Flags Entertainm	4.53	12.00	8.00	8.00	8.00	9.00	4.73	13,73
Spectrum Brands	1.55	11.50	9.25	9.60	9.25	9.90	1.63	11.53
Target Corp.	4.33	4.50	(3.33)	4.70	(3.33)	4.60	4.43	9.03
VeriSign Inc.	*	10.50	NA	NA	8.00	9.25		NA
VWR Corp.	*	NA	8.99	NA	8.99	8.99	*	NA
WD-40 Co.	1.80	8.00	NA	10.00	13.00	10.33	1.89	12.22
West Pharmac. Svcs.	0.62	15.00	18.13	17.10	18.13	17.09	0.67	17.76
							Mean	13.83 %
							Median	13.31 %
						Average of Me	an and Median	13.57 %

NA= Not Available NMF= Not Meaningful Figure

(1) The application of the DCF model to the domestic, non-price regluated comparable risk companies is identical to the application of the DCF to the utility proxy group. The dividend yield is derived by using the 60 day average price and the spot indicated dividend as of October 13, 2017. The dividend yield is then adjusted by 1/2 the average projected growth rate in EPS, which is calculated by averaging the 5 year projected growth in EPS provided by Value Line, www.reuters.com, www.zacks.com, and www.yahoo.com (excluding any negative growth rates) and then adding that growth rate to the adjusted dividend yield.

Source of Information:

Value Line Investment Survey www.reuters.com Downloaded on 10/13/2017 www.zacks.com Downloaded on 10/13/2017 www.yahoo.com Downloaded on 10/13/2017

Carolina Water Service, Inc. of South Carolina Indicated Common Equity Cost Rate Through Use of a Risk Premium Model Using an Adjusted Total Market Approach

Line No.			Proxy Group of Twenty-Eight Non- Price Regulated Companies
1.		Prospective Yield on Baa Rated Corporate Bonds (1)	5.36 %
2.		Equity Risk Premium (2)	6.55
3.		Risk Premium Derived Common Equity Cost Rate	<u>11.91</u> %
Notes:	(1)	Average forecast of Baa corporate bonds based upon nearly 50 economists reported in Blue Chip Financia October 1, 2017 and June 1, 2017 (see pages 10 and 4). The estimates are detailed below.	l Forecasts dated
		Fourth Quarter 2017 First Quarter 2018 Second Quarter 2018 Third Quarter 2018 Fourth Quarter 2018 First Quarter 2019 2019-2023 2024-2028	4.50 % 4.80 5.00 5.10 5.30 5.50 6.30 6.40
		Average	 5.36_ %

(2) From page 5 of this Schedule.

Carolina Water Service, Inc. of South Carolina Comparison of Long-Term Issuer Ratings for the Proxy Group of Twenty-Eight Non-Price Regulated Companies of Comparable risk to the Proxy Group of Eight Water Companies

	Long-Terr	loody's n Issuer Rating ber 2017	Standard & Poor's Long-Term Issuer Rating October 2017		
Proxy Group of Twenty-Eight Non-Price Regulated Companies	Long- Term Issuer Rating	Numerical Weighting (1)	Long- Term Issuer Rating	Numerical Weighting (1)	
AmerisourceBergen ARAMARK Holdings AutoZone Inc. Bright Horizons Fami	Baa2 NR Baa1 NR	9.0 8.0	A- BB+ BBB NR	7.0 11.0 9.0	
Cheesecake Factory CBOE Holdings Chemed Corp.	NR Baa1 NR	8.0	NR BBB+ NR	8.0	
C.H. Robinson CME Group DineEquity Inc.	NR Aa3 NR	4.0	NR AA- NR	4,0	
Dunkin' Brands Group Darden Restaurants Forrester Research	NR Baa3 NR	10.0	NR BBB NR	9.0 	
Hormel Foods Lilly (Eli) Mercury General	A1 A2 Baa2	5.0 6.0 9.0	A AA- NR	6.0 4.0	
Vail Resorts NVR, Inc. Pinnacle Foods	NR Baa2 NR	9.0 	NR BBB+ BB-	8.0 13.0	
Quintiles IMS Hldgs. Regal Entertainment Six Flags Entertainm	NR B3 B2	16.0 15.0	BBB- BB- BB	10.0 13.0 12.0	
Spectrum Brands Target Corp. VeriSign Inc.	NR A2 Ba1	6.0 11.0	NR A BB+	6.0 11.0	
VWR Corp. WD-40 Co. West Pharmac. Svcs.	NR NR NR		BB- NR NR	13.0	
Average	Baa2	8.9	ВВВ	9.0	

Notes:

(1) From page 6 of Schedule DWD-4.

Source of Information:

Bloomberg Professional Services

Carolina Water Service. Inc. of South Carolina

Derivation of Equity Risk Premium Based on the Total Market Approach Using the Beta for

Proxy Group of Twenty-Eight Non-Price Regulated Companies of Comparable risk to the <u>Proxy Group of Eight Water Companies</u>

Line No.		Equity Risk Premium Measure	Proxy Group of Twenty-Eight Non- Price Regulated Companies
	Ibbo	otson-Based Equity Risk Premiums:	
1.		Ibbotson Equity Risk Premium (1)	5.56 %
2.		Regression on Ibbotson Risk Premium Data (2)	7.37
3.		Ibbotson Equity Risk Premium based on PRPM (3)	5.91
4.		Average Ibbotson Equity Risk Premium	6.28
	<u>Valu</u>	ne Line-Based Equity Risk Premiums:	
5.		Equity Risk Premium Based on <u>Value Line</u> Summary and Index (4)	4.84
6.		Equity Risk Premium Based on <u>Value Line</u> S&P 500 Companies (5)	9.69
7.		Average <u>Value Line</u> Equity Risk Premium	7.26
	Bloc	omberg-Based Equity Risk Premium:	
8.		Equity Risk Premium Based on Bloomberg S&P 500 Companies (6)	9.31
9.		Conclusion of Equity Risk Premium (7)	7.62 %
10.		Adjusted Beta (8)	0.86
11.		Forecasted Equity Risk Premium	6.55 %
Notes:		Torres and A of the Oracle Oracle Auto DWD 4	
	(1) (2)	From note 1 of page 9 of Schedule DWD-4. From note 2 of page 9 of Schedule DWD-4.	
		From note 3 of page 9 of Schedule DWD-4.	
		From note 4 of page 9 of Schedule DWD-4.	
		From note 5 of page 9 of Schedule DWD-4.	
		From note 6 of page 9 of Schedule DWD-4.	
	(7)	The state of the s	
	(8)	Average of mean and median beta from page 6 of this Schedule.	
	Sou	rces of Information:	
		Stocke Bonde Bills and Inflation 2017 SPRI Vearbook John Wiley	& Sone Inc

Stocks, Bonds, Bills, and Inflation - 2017 SBBI Yearbook, John Wiley & Sons, Inc. <u>Value Line</u> Summary and Index Blue Chip Financial Forecasts, October 1, 2017 and June 1, 2017 Bloomberg Professional Services

<u>Carolina Water Service, Inc. of South Carolina</u> Traditional CAPM and ECAPM Results for the Proxy Group of Non-Price-Regulated Companies Comparable in Total Risk to the <u>Proxy Group of Eight Water Companies</u>

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Twenty-Eight Non- Price Regulated Companies	Value Line Adjusted Beta	Bloomberg Beta	Average Beta	Market Risk Premium (1)	Risk-Free Rate	Traditional CAPM Cost Rate	ECAPM Cost Rate	Indicated Common Equity Cost Rate (3)
AmerisourceBergen	0.85	0.96	0.91	8.67 %	3.58 %	11.47 %	11.66 %	11.56 %
ARAMARK Holdings	0.85	0.87	0.86	8.67	3.58	11.03	11.34	11,18
AutoZone Inc.	0.75	0.85	0.80	8.67	3.58	10.51	10.95	10.73
Bright Horizons Fami	0.85	1.09	0.97	8.67	3.58	11.99	12.05	12.02
Cheesecake Factory	0.75	0.91	0.83	8.67	3.58	10.77	11.14	10.96
CBOE Holdings	0.70	0.82	0.76	8.67	3.58	10.17	10.69	10.43
Chemed Corp.	0.80	1.07	0.94	8.67	3.58	11.73	11.86	11.79
C.H. Robinson	0.85	0.66	0.75	8.67	3.58	10.08	10.62	10.35
CME Group	0.80	0.94	0.87	8.67	3.58	11.12	11.40	11.26
DineEquity Inc.	0.80	0.79	0.80	8.67	3.58	10.51	10.95	10.73
Dunkin' Brands Group	0.65	0.88	0.77	8.67	3.58	10.25	10.75	10.50
Darden Restaurants	0.85	0.84	0.85	8.67	3.58	10.95	11.27	11.11
Forrester Research	0.70	1.11	0.91	8.67	3.58	11.47	11.66	11.56
Hormel Foods	0.75	0.55	0.65	8.67	3.58	9.21	9.97	9.59
Lilly (Eli)	0.75	0.81	0.78	8.67	3.58	10.34	10.82	10.58
Mercury General	0.80	0.92	0.86	8.67	3.58	11.03	11.34	11.18
Vail Resorts	0.85	0.90	0.88	8.67	3.58	11.21	11.47	11.34
NVR, Inc.	0.85	0.89	0.87	8.67	3.58	11.12	11.40	11.26
Pinnacle Foods	0.80	0.75	0.77	8.67	3.58	10.25	10.75	10.50
Quintiles IMS Hldgs.	0.85	0.91	0.88	3.67	3.58	11.21	11.47	11.34
Regal Entertainment	0.85	0.88	0.86	8.67	3.58	11.03	11.34	11.18
Six Flags Entertainm	0.85	0.86	0.85	8.67	3.58	10.95	11.27	11.11
Spectrum Brands	0.85	0.76	0.80	8.67	3.58	10.51	10.95	10.73
Target Corp.	0.80	0.92	0.86	8.67	3.58	11.03	11.34	11.18
VeriSign Inc.	0.85	1.12	0.99	8.67	3.58	12.16	12.18	12,17
VWR Corp.	0.85	1.02	0.94	8.67	3.58	11.73	11.86	11.79
WD-40 Co.	0.85	0.81	0.83	8.67	3.58	10.77	11.14	10,96
West Pharmac, Svcs.	0.85	1.05	0.95	8.67	3.58	11.81	11.92	11.87
Mean			0.85			10.94 %	11.27 %	11.11 %
Median			0.86			11.03 %	11.34 %	11.19 %
Average of Mean and Median			0.86			10.99 %	11.31 %	11.15 %

Notes:

- (1) From Schedule DWD-5, note 1.
- (2) From Schedule DWD-5, note 2.
- (3) Average of CAPM and ECAPM cost rates.

chedule DWD-7 Page 6 of 6

Carolina Water Service, Inc. of South Carolina Derivation of Investment Risk Adjustment Based upon Ibbotson Associates' Size Premia for the Decile Portfolios of the NYSE/AMEX/NASDAQ

		[1	ւյ	[2]	[3]	[4]			
Line No.		Market Capitaliza 13, 20 (millions)		Applicable Decile of the NYSE/AMEX/ NASDAQ (2)	Applicable Size Premium (3)	Spread from Applicable Size Premium (4)			
1.	Carolina Water Service, Inc. of South Carolina	\$ 57.209		10	5.59%				
2.	Proxy Group of Eight Water Companies	\$ 3,543.646	61.9 x	5	1.51%	4.08%			
		[A]	[B]	[C]	[D]	[E]			
		Decile	Number of Companies	Recent Total Market Capitalization (millions)	Recent Average Market Capitalization (millions)	Size Premium (Return in Excess of CAPM)			
	Largest	1	191	\$15,290,475.30	\$80,054.84	-0.35%			
		2	200	\$3,010,671.02	\$15,053.36	0.61%			
		3	202	\$1,609,575.62	\$7,968.20	0.89%			
		4 5	221 227	\$1,010,851.81 \$677,120.07	\$4,573.99 \$2,982.91	0.98% 1.51%			
		6	259	\$541,038.00	\$2,088.95	1.66%			
		7	283	\$384,129.20	\$1,357.35	1.72%			
		8	361	\$297,164.94	\$823.17	2.08%			
		9	487	\$212,609.64	\$436.57	2.68%			
	Smallest	10	790	\$92,882.17	\$117.57	.57 5.59%			
			*Fro	m 2017 Stocks, Bonds, Bills, and Inflation (SBBI) Yearbook					

Notes:

- (1) From page 2 of this Schedule.
- (2) Gleaned from Column (D) on the bottom of this page. The appropriate decile (Column (A)) corresponds to the market capitalization of the proxy group, which is found in Column 1.
- (3) Corresponding risk premium to the decile is provided on Column (E) on the bottom of this page.
- (4) Line No. 1 Column 3 Line No. 2 Column 3. For example, the 4.08% in Column 4, Line No. 2 is derived as follows 4.08% = 5.59% 1.51%.

<u>Carolina Water Service, Inc. of South Carolina</u> Market Capitalization of Carolina Water Service, Inc. of South Carolina and <u>Proxy Group of Eight Water Companies</u>

		[1]	[2]			[3]		[4]	[5]		[6]		
Company	Exchange	Common Stock Shares Outstanding at Fiscal Year End 2016 (millions)	Outstanding at Fiscal Year End 2016 Year End 2016 (1)		at Fi	Total Common Equity at Fiscal Year End 2016 (millions)		ng Stock t Price on ber 13, 017			Market Capitalization on October 13, 2017 (3) (millions)		
Carolina Water Service, Inc. of South		NA		NA	_\$	17.352 (4		NA_					
Based upon Proxy Group of Eight Water Companies									329.7	<u>_</u> (5)	\$	57.209 (6)	
Proxy Group of Eight Water Companies American States Water Co. American Water Works Company Inc Aqua America Inc California Water Service Group Connecticut Water Service Inc Middlesex Water Co. SJW Corp York Water Co.	NYSE NYSE NYSE NYSE NASDAQ NASDAQ NYSE NASDAQ	36.571 178.097 177.394 47.965 11.248 16.296 20.456 12.852	\$	13.516 29.299 10.429 13.749 20.983 13.404 20.612 8.875	\$	494.297 5,218.000 1,850.068 659.471 236.028 218.437 421.646 114.061	\$	52.810 85.020 34.810 41.350 62.170 43.610 60.890 35.950	390.7 290.2 333.8 300.7 296.3 325.4 405.7	! } } }	\$	1,931.334 15,141.780 6,175.098 1,983.349 699.317 710.669 1,245.580 462.040	
Average		62.610	\$	16.358	\$	1,151.501	\$	52.076	329.	_% =	\$	3,543.646	

NA= Not Available

Notes: (1) Column 3 / Column 1.

- (2) Column 4 / Column 2.
- (3) Column 1 * Column 4.
- (4) Carolina Water Services, Inc. of South Carolina's 2016 book equity from its annual report to the Commission multiplied by the requested common equity ratio.
- (5) The market-to-book ratio of Carolina Water Service, Inc. of South Carolina on October 13, 2017 is assumed to be equal to the market-to-book ratio of Proxy Group of Eight Water Companies on October 13, 2017.
- (6) Carolina Water Service, Inc. of South Carolina's common stock, if traded, would trade at a market-to-book ratio equal to the average market-to-book ratio at October 13, 2017 of the Proxy Group of Eight Water Companies, 329.7%, and Carolina Water Service, Inc. of South Carolina's market capitalization on October 13, 2017 would therefore have been \$57.21 million.

Source of Information: 2016 Annual Forms 10K
Bloomberg Financial Services

Carolina Water Service, Inc. of South Carolina Portfolio Ranks by Size and Risk Premiums over CAPM Results as Compiled by Duff and Phelps 2017 Guide to Cost of Capital

	B <u>-1</u>		<u>B-</u> 2		<u>B-4</u>		<u>B-</u> 5		<u>B-7</u>		<u>B-8</u>		
Portfolio Rank by Size	Average Mkt. Value (in \$millions)	Smoothed Premium over CAPM	Average Book Val. (in \$millions)	Smoothed Premium over CAPM	MVIC (in \$millions)	Smoothed Premium over CAPM	Total Assets (in \$millions)	Smoothed Premium over CAPM	Sales (in \$millions)	Smoothed Premium over CAPM	Average Number of Employees	Smoothed Premium over CAPM	
1	\$ 238,299	-1,78%	\$ 67,532	0.98%	\$ 277,921	-1.02%	\$ 161,117	52.00%	\$ 123,791	0.88%	341,434	0.43%	
2	60,613	-0.16%	21,719	1.68%	77,365	0.28%	51,936	1.39%	38,382	1.75%	107,466	1.40%	
3	35,630	0.47%	14,074	1.95%	46,877	0.79%	35,110	1,69%	22,044	2.17%	64,944	1.82%	
4	23,756	0.95%	9,200	2.22%	32,471	1.16%	25,351	1.95%	17,114	2.35%	46,747	2.09%	
5	17,471	1.32%	6,875	2.40%	24,248	1.45%	18,141	2.20%	13,286	2.54%	34,256	2.35%	
6	13,871	1.59%	5,488	2.54%	18,506	1.73%	14,376	2.38%	10,376	2.73%	26,595	2.57%	
7	11,594	1.80%	4,590	2.65%	15,426	1.91%	11,035	2.59%	8,400	2.88%	22,447	2.71%	
8	9,463	2.04%	3,716	2.78%	13,457	2,05%	9,004	2.74%	6,977	3.02%	18,590	2.86%	
9	7,822	2.27%	3,112	2.89%	10,762	2.28%	7,861	2.85%	5,938	3.14%	15,489	3.02%	
10	6,482	2.49%	2,586	3.01%	8,658	2.50%	6,771	2.96%	5,106	3.25%	13,344	3.14%	
11	5,637	2.66%	2,266	3.09%	7,453	2.65%	5,710	3.09%	4,435	3.36%	11,841	3.24%	
12	4,791	2.85%	2,012	3.16%	6,455	2.79%	4,998	3.19%	3,740	3.48%	10,389	3.35%	
13	3,915	3.09%	1,751	3.25%	5,466	2.96%	4,290	3.31%	3,184	3.60%	9,004	3.47%	
14	3,329	3.28%	1,500	3.34%	4,718	3.11%	3,661	3.43%	2,771	3.71%	7,588	3.61%	
15	2,897	3.45%	1,303	3.43%	4,043	3.27%	3,160	3.55%	2,509	3.78%	6,511	3.74%	
16	2,508	3.62%	1,174	3.50%	3,541	3.40%	2,735	3.66%	2,276	3.85%	5,710	3.85%	
17	2,130	3.81%	1,030	3.58%	3,075	3.55%	2,345	3.78%	1,980	3.96%	4,908	3.98%	
18	1,842	3.99%	861	3.69%	2,587	3.72%	1,927	3.93%	1,670	4.08%	4,194	4.11%	
19	1,584	4.17%	711	3.81%	2,109	3.93%	1,621	4.06%	1,412	4.21%	3,507	4.26%	
20	1,313	4.39%	577	3.94%	1,696	4.15%	1,363	4.19%	1,181	4.34%	2,908	4.42%	
21	1,023	4.69%	479	4.05%	1,323	4.40%	1,069	4.38%	696	4.49%	2,328	4.60%	
22	731	5.08%	385	4.19%	1,014	4.67%	801	4.60%	797	4.63%	1,797	4.82%	
23	532	5.46%	303	4.34%	738	4.99%	600	4,82%	589	4.86%	1,281	5.10%	
24	370	5.89%	207	4.57%	513	5.36%	429	5.08%	407	5.13%	871	5.42%	
25	121	7.22%	76	5.19%	163	6.52%	161	5,83%	129	5,99%	305	6.30%	
		Portfolio		Portfolio		Portfolio		Portfolio		Portfolio		Portfolio	
Proxy Group of Eight Water	B-1 Value	Ranking	B-2 Value	Ranking	B-4 Value	Ranking	B-5 Value	Ranking	B-7 Value	Ranking	B-8 Value	Ranking	
Companies	\$ 3,383	14	\$ 1,152	16	\$ 4,769	14	\$ 3,961	13-14	\$ 723	21-22	1,417	22-23	
Carolina Water Service, Inc. of South Carolina	\$ 57.21	25	\$ 17,35	25	\$ 57.21	25	\$ 79.51	25	\$ 21.47	25	48	25	
Indicated Risk Premium	3.94	3.94%		1.69%		3.41%		2.46%		1.43%		1.34%	

Sources of Information

Duff & Phelps 2017 Valuation Handbook Exhibit B-1 through B-8 SNL Financial Company Form 10-K